



# THE SOURCE



NEWSLETTER OF THE NHDES DRINKING WATER SOURCE PROTECTION PROGRAM

SPRING 1999

## DES to Award \$338,000 in Local Water Protection Grants

Fifty water systems, municipalities, non-profit organizations, and other entities have taken advantage of over \$809,500 in Local Water Protection Grants from DES in the last two years. After awarding \$471,500 to 28 projects in 1998, DES expects to award another \$338,000 for 28 projects this year.

By combining two sources of funding, the Nonpoint Source Program and the Drinking Water Source Protection Program, DES has been able to fund a wider range of eligible projects in recent years.

Grant money can be used in all phases of watershed management and drinking water protection. The water supply grants, which can only be used for protection of active or planned public water supplies, cover all aspects of source water protection: *delineation, assessment and implementation*. For example, grant money can be used to refine the existing delineation of the area around a water supply source where groundwater is likely to flow towards the well, conduct an inventory of all potential and known contamination sources within that defined area, assess known and potential threats to the water quality and implement appropriate wellhead protection methods.

Water supply projects have included both planning and implementation work. Planning

projects include delineation of wellhead protection areas and critical watershed segments; inventorying potential contamination sources in river corridors, wellhead protection areas, and stratified drift aquifers; and formation of watershed protection alliances. Implementation projects have included performing land surveys as a precursor to land acquisitions and controlling access within a wellhead area. Grantees have ranged from the state's largest cities to small apartment complexes and mobile home parks.

Nonpoint source grants cover a much broader range of projects, including implementation of watershed and aquifer protection. These grants cover organization building for watershed protection, water resource protection planning, and implementation of water resource management plans including best management practices, education and outreach programs, and other pollution prevention activities.

The next round of grants will be issued in the year 2000. Applications will be sent out in September 1999 with a deadline in November 1999.

For those interested in receiving an application or if you have any questions regarding source water protection grants, contact Johnna Furber at 603-271-7017 or Eric Williams for questions regarding the nonpoint source grants at 603-271-2358.

### Here is a sample of water supply projects already funded

**City of Lebanon** is using \$22,000 to determine the susceptibility of the Mascoma River watershed, the City's primary drinking water source, to contamination by developing a GIS map of watershed lands. This map and land use inventory will be used as a tool for decision making in zoning, economic development and land use decisions.



**Village of Eidelweiss** is using \$12,308 to improve existing data related to potential contamination sources of the Eidelweiss water system by collecting information regarding potential contamination sources, creating a GIS data layer, reviewing existing source water protection management plans and ordinances, and working with the town to create a source water protection action plan.



**Monadnock Tenants Cooperative** was granted \$17,000 to inventory and assess subsurface wastewater disposal systems and stormwater drainage systems to determine what action is necessary to protect the water supply from these potential contamination sources.



## Spotlight on... Jaffrey

On March 11, 1999, DES Commissioner Robert Varney approved the Town of Jaffrey's request to reclassify groundwater in its wellhead protection areas in Jaffrey and Rindge. The area will be classified GAA, the most protected category, which gives the Town of Jaffrey the authority to enforce state Best Management Practices rules, Env-Ws 421, and prohibits six high-risk land uses.

To qualify for reclassification, Jaffrey completed an inventory of potential contamination sources (PCSs) in the wellhead protection area,

held a public informational meeting, visited PCSs, and compiled an inventory report.

To maintain the GAA classification, Jaffrey will revise the PCS inventory and conduct compliance inspections every three years. For its part, DES places a higher priority on groundwater protection activities (e.g. oil spill remediation and RCRA and UST compliance) in reclassified areas. Jaffrey joins Pembroke, Stratham, Salem, Raymond, and the village of Eastman in undergoing the reclassification process. For more information, contact Paul Susca at 271-7061.

## DES Updating Groundwater and Source Water Plan

This summer, DES will develop a new five-year plan to improve the protection of groundwater and public water supply sources statewide. The Comprehensive State Source Water and Groundwater Protection Program (CSGWPP) involves state, federal, local, and regional agencies and other stakeholders in identifying what more needs to be done to improve the comprehensiveness, effectiveness, efficiency, and coordination of protection efforts.

The CSGWPP was initiated by DES in 1992. The participating agencies and stakeholders adopted the first five-year work plan (which focused solely on groundwater) in 1994. The original work group, which has continued to monitor progress on the first work plan, will be expanded and contacted this spring to identify issues to be addressed in the next five years. This summer the work group will participate in a series of meetings to develop a final work plan by the fall. For more information, or to suggest the inclusion of groups in the process, contact Sarah Pillsbury at 271-1168.

### Some accomplishments of the first CSGWPP work plan

**Groundwater Information:** a dramatic increase in the number of public water supply wells with delineated wellhead protection areas, and development of numerous groundwater information sources.

**Preventative Action:** development of a groundwater protection policy for highway siting, development of model conservation easements for water supply lands, and a study of the conservation status of water supply lands statewide.

**Groundwater Discharges:** new DES policies regarding discharges from well pumping tests and well rehabilitation and an initiative to bring septage lagoons into compliance with applicable rules.

**Corrective Action:** reorganization of groundwater-related programs in DES, creation of a Risk Characterization and Management Policy for contaminated sites, and development of the Brownfields Program.

**Outreach:** highway sign program, seminars for planners and municipal officials, *DES Guide to Groundwater Protection*, model groundwater protection ordinance, groundwater education slide set, Project WET (Water Education for Teachers), and *The Source*.

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# Closer To Home

Information for well owners and public water system customers

## What You Should Know About Radon in Drinking Water

Radon is a colorless, odorless, tasteless, radioactive gas produced through the natural decay of radioactivity found in soil and rocks. Radon increases the risk of lung and other cancers. Exposure to radon occurs in basically two ways, from the air that migrates up through the soil and from the water that we drink as radon dissolves in our groundwater.

At present there is no federal or state standard for radon in drinking water although the US EPA did propose a maximum contaminant level (MCL) of 300 pCi/L in July 1991 for public water supplies. (This would not have applied to private home water supplies). Since then, the reauthorization of Safe Drinking Water Act has specified that the US EPA should develop and finalize an MCL and an alternative MCL for radon before August 2000.

Once the US EPA sets an MCL for radon, public water systems will be required to test for it in the water they provide to their customers. If supplies exceed the MCL, systems will be required to treat the water or find another source.

In New Hampshire, the migration of radon through the soil and into basements through

cracks in the foundation contributes the largest percent of human exposure within the average home while radon from a groundwater water supply source contributes the next largest percentage. DES estimates that approximately 95% of all bedrock wells in NH would exceed a radon concentration of 300 pCi/L and 40% would exceed 4000 pCi/L.

If you are a homeowner with a private well, DES recommends that you test the water supply in your home for radon. Tests for radon require approximately two weeks for processing, require a special sample bottle, and cost \$20. A sample container for a radon water test may be obtained from the DES Laboratory by calling 271-3445/3446. In addition, many commercial labs also provide radon-in-water testing. To truly know the risk posed to your family by radon, you should also test the air in your home. Air test kits are available from most hardware stores.

For more information about radon in drinking water contact DES at 271-3139. You can also contact US EPA at 1-800-426-4791 or see their website at [www.epa.gov/OGWDW/](http://www.epa.gov/OGWDW/)



## DES Teams Up With Forest Society on Conservation of Water Supply Lands

New Hampshire's foremost land conservation organization has teamed up with the NH Department of Environmental Services (DES) to help municipalities and water suppliers protect their water supply lands. The Water Supply Land Conservation Community Outreach Project makes expert assistance from the Society for the Protection of NH Forests available in all phases of land conservation. From identifying key water supply lands (wellhead protection areas, water supply watersheds, important aquifers) to working with landowners to plan for on-

going stewardship of protected lands, the project will help towns make the most of available funding sources. Sylvia Bates, the Society's Outreach Specialist, can assist municipalities.

The outreach project was prompted by a DES-funded study performed by the Forest Society in 1997-1998, which found that only 11% of key water supply lands and only 12% of high-yield aquifer lands are conserved. In addition to this outreach project, legislation is being considered which would establish a matching grant program for acquisition of water supply lands.

For more information, contact Sarah Pillsbury (DES) at 271-1168 or Sylvia Bates (SPNHF) at 279-8890.

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# New Resources Available for Groundwater Planning and Protection

## Guide to Analyzing Stratified-Drift Aquifer Maps

The NH Department of Environmental Services (DES) has just published a guide to help municipalities and water suppliers analyze stratified-drift aquifer maps with a view to protecting potential sites for future wells.

In recent years, US Geological Survey and DES completed a set of maps showing the extent of stratified-drift (sand-and-gravel) aquifers throughout the state.

For many communities, these maps show large areas underlain by stratified-drift aquifers. In such cases, the maps might be interpreted to mean that a community has a wealth of potential future sites for community water supply wells. In reality, only a small fraction of the total area underlain by stratified-drift aquifers is likely to have the potential for high-yielding community supply wells. Recognizing this, DES has

developed the “favorable gravel well analysis,” taking into account the water quantity and quality constraints to siting a community well, to help water suppliers and community planners make better use of the stratified-drift aquifer maps.

DES planners emphasize that the technique is a planning tool, not a well-siting tool. A hydrogeologist is still required to identify actual well sites. *A Guide to Identifying Potentially Favorable Areas to Protect Future Municipal Wells in Stratified-Drift Aquifers*, written for planners and municipal officials, is now available from DES by calling 271-7061.

For more information about this guide, please view our fact sheet on our website at <http://www.state.nh.us/des/ws-22-12.htm>

## Model Zoning Ordinance for Groundwater Protection

A new model zoning ordinance is now available to help municipalities protect aquifers and other important groundwater resources. While many examples of aquifer protection ordinances were previously available, this model is the first to be developed by NH Office of State Planning and NH Department of Environmental Services.

The two state agencies undertook the project in response to requests from municipal officials looking for a way to protect resources identified in stratified-drift aquifer studies completed by DES and US Geological Survey.

The new model takes a fresh approach to protecting important groundwater resources. While existing ordinances typically rely on a relatively extensive list of prohibited uses, followed by a list of conditional uses, and

a set of rather broad performance standards for conditional uses, the new model emphasizes specific performance standards for all uses, along with an inspection program. The model also includes a short list of prohibited uses.

The planners who developed the model ordinance felt that municipalities needed an alternative to the heavy reliance on prohibited uses, since many towns feel that it is not practical to prohibit nearly all industrial and many commercial uses over valuable groundwater resources, which often overlap with the most desirable real estate.

For more information or for a copy of the model ordinance, contact your regional planning commission or DES at 271-7061.



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